PREPARATION OF FAMILY NURSE PRACTITIONERS

AT THE UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES FOR THEIR ROLE IN HUMANITARIAN ASSISTANCE OPERATIONS

CAPT SUSAN LEE, USAF, NC

THESIS COMMITTEE:

Dr. Eugene Levine

COL Catherine Schempp

LTC Marjorie Graziano

Purpose of Study

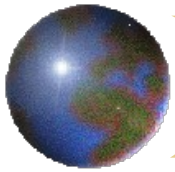
- To determine the specific type of illnesses and/or injuries that have been seen and treated in humanitarian assistance military operations
- To evaluate the preparation of Family Nurse Practitioners at USUHS in the GSN program to meet these expectations

So Who Cares?

U.S. military forces, historically trained primarily for combat environments, are being utilized more and more frequently in humanitarian assistance operations.

Medical support is a key component of this type mission.

Are FNPs in the military prepared for this?



BACKGROUND

- Since end of Cold War, U.S. military altered focus from predominately combat readiness to more global involvement
- Long history of U.S. forces providing emergency humanitarian relief
- Humanitarian assistance operations present different problems than conventional war

Research Questions:

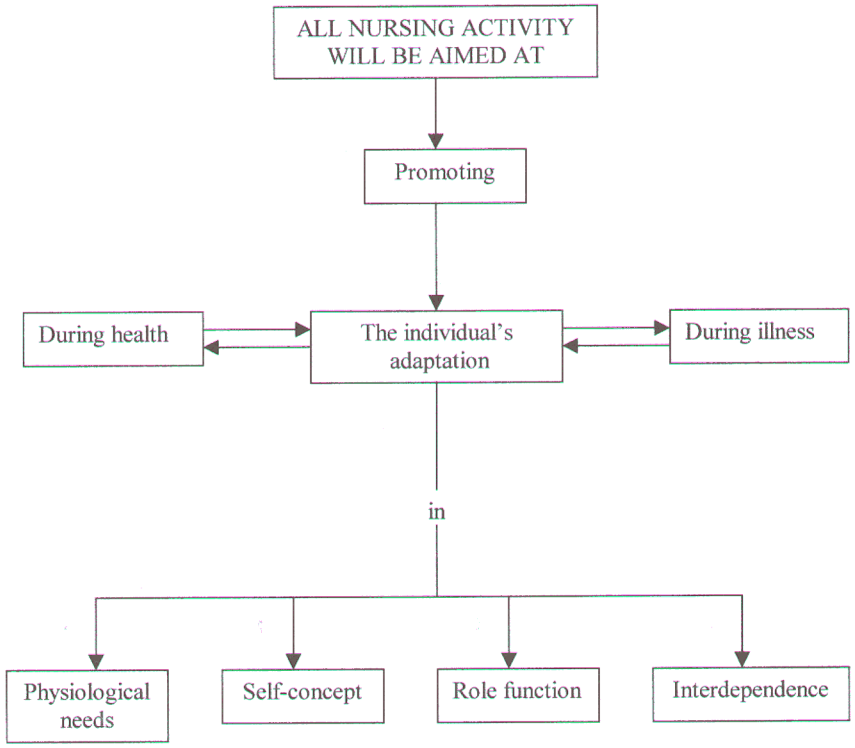
- What are the specific conditions/illnesses/injuries that are expected during a humanitarian assistance type military operation?

- Is the FNP educated at the Uniformed Services University of the Health Sciences adequately prepared to meet these specific challenges?

Theoretical Framework

Sister Callista Roy's Adaptation Theory

People are constantly faced with the need to adapt to focal, contextual, and residual stimuli.



Pearson, Vaughan, & Fitzgerald, 1996, p.116

Research Design

The research design for this study was a descriptive survey. The questionnaire used was created by the author, based on documented health care provided in three recent humanitarian assistance military operations. It allowed all FNP graduates of USUHS to evaluate their preparation for their role in humanitarian assistance missions.

Research Design

- Initial review of literature and analysis of data from 3 recent humanitarian assistance operations determined the top ten most frequently diagnosed medical conditions to be:

URI Musculoskeletal Headache
GI Parasitic infection Anemia
Skin GU Fever
Ear infection

Instrumentation

THE SURVEY TOOL:

3 parts: demographic data
deployment data
questionnaire

QUESTIONNAIRE:

5 aspects of care

assess/diagnose, treat, provide education, refer, prevention

On the top 10 diagnoses seen and treated previously

Validity and Reliability

- CONTENT VALIDITY: 3 faculty members at USUHS reviewed questionnaire for appropriateness of each item.
- TEST – RESTEST: 7 Second-Year FNP students at a 2-week interval. Consistency of responses 92%. Reliability coefficient almost 1.0.

Sample and Setting

- Sample/population: all 40 FNP graduates of USUHS who earned Master's Degrees as FNP
- Non-random selection
- Study generalizable to all future FNP students at USUHS
- Setting: the tool was sent to sample via e-mail
- Those without e-mail access, the tool was sent via postal service.

Data Analysis

- Results of questionnaire were entered into SPSS-9 software program
- Overall results on each item indicated the level of preparation FNP graduates felt they received in the FNP program at USUHS for humanitarian assistance operations

Demographic Data

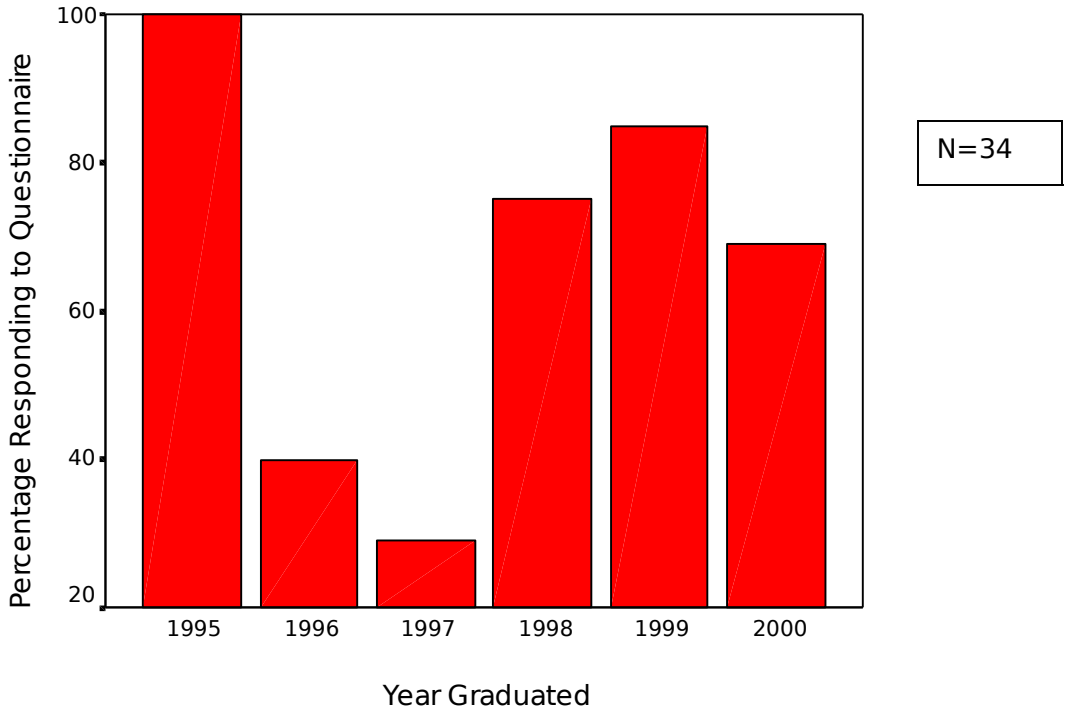
- Age: mean 39.6
- Gender: M=4
  F=30
- Service: USA=5,
  USPHS=6,
  USAF=23
- 34 Responses from 53 subjects = 64% response rate

Deployment Data:

- Only 2 respondents, both USAF, deployed since becoming FNP, only one in FNP role

- “If you were deployed today on a humanitarian mission, based on your education/training at USUHS, do you feel prepared to function as a FNP in that setting?” YES: 31 (91%) NO: 3 (9%)

Percentage Respondents per Graduation Year



Data Analysis:

- **Top 10 Diagnoses Overall in Three Humanitarian Assistance Operations**

- Upper Respiratory Infections 17.5%
- Gastrointestinal Problems 10.5
- Musculoskeletal Problems 9.2
- Headache 8.5
- Parasitic Infections 8.2
- Anemia 5.1
- Skin Problems 4.3
- Genitourinary Problems 3.6
- Fever 3.5
- Ear Infections 3.0
- All others 26.6

Data Analysis:

- Total of 50 questions (10 diagnoses x 5 aspects of care)

- **76.8%** - (1) Had thorough education and clinical experience at USUHS; would need no supervision
- **16.9%** - (2) Had thorough education but no clinical experience at USUHS; may need some supervision
- **2.8%** - (3) Had little education or clinical experience at USUHS; definitely need supervision
- **1.8%** - (4) Had no experience at USUHS but have seen it in practice; may need review and supervision
- **.05%** - (5) Had no experience at USUHS or in practice; not comfortable treating this patient
- (27 questions left unanswered for the remaining **1.6%)**

Data Analysis:

- Average mean response of each diagnosis:
  - URI 1.04
  - Ear Infections 1.04
  - Genitourinary 1.06
  - Fever 1.12
  - Headache 1.26
  - Gastrointestinal 1.27
  - Anemia 1.31
  - Musculoskeletal 1.45
  - Skin Problems 1.46
  - Parasitic Infections 1.82

Conclusions:

- 3 diagnoses felt most prepared to care for:
  - URI
  - Ear Infections
  - Genitourinary
- 3 diagnoses felt least prepared to care for:
  - Parasitic Infections
  - Musculoskeletal
  - Skin Problems

Conclusions:

- Is the FNP educated at USUHS adequately prepared to meet these specifications?
  - 91% - YES
  - 9% - NO

Protection of Human Subjects

- USUHS IRB approval
- Responses were printed from computer without subjects' names/addresses prior to evaluation
- Results encoded into SPSS-9 with coding numbers for all subjects.
- Data stored for 5 years on 3 ½" disk, original data deleted from hard drive, paper copies destroyed

Assumptions

- The illnesses/conditions as described by ICD-9 identifiers in previous humanitarian assistance missions will be similar to those in future operations.
- The FNPs that responded to the questionnaire responded honestly.

Limitations

- Most available data from Army units, may not be generalizable to other services.
- Disasters are unpredictable and can happen anywhere in world; data may not be generalizable to all areas of world.
- The responses are self-reported and do not assess actual capabilities of the FNP.

Recommendation for Further Research:

- Studies comparing preparation of military FNPs at USUHS and civilian graduate nursing programs

Refugee in Guinea, arrived hours earlier from Kono